

11/25/19

2083



Union Carbide Corporation
A Subsidiary of The Dow Chemical Company
P.O. Box 50
355 Hwy. 3142
Hahnville, LA 70057
USA

A

November 25, 2019

519-139931
T 194421
Theresa Lo Giudice

CERTIFIED MAIL - RETURN RECEIPT REQUESTED
7018-3090-0C00-0035-3894

Louisiana Department of Environmental Quality
Office of Environmental Compliance
Emergency and Radiological Services Division
Attn: SPOC
P.O. Box 4312
Baton Rouge, Louisiana 70821-4312

Re: Unauthorized Discharge Notification Report for Event of November 20, 2019
Union Carbide Corporation, St. Charles Operations
Agency Interest No. 2083
EPA ID No. LAD041581422

Dear Sir or Madam:

On November 20, 2019, your office was notified of a release at Union Carbide Corporation, St. Charles Operations (refer to State Police Report 007 and NRC Report 1264392). Enclosed is the written report pursuant to LAC 33:L3925.A and 40 CFR §355.40(b).

Please contact me at 985-783-3930 if you have any questions or need additional information. All written correspondence should be sent directly to Scott White, Responsible Care Leader at P.O. Box 50, Hahnville, LA 70057.

Sincerely,

Jorge Cerame
Organizational Effectiveness & EH&S Delivery Leader

Enclosures

CRC/CMJ

cc: LDEQ Southeast Regional Office
St. Charles Parish Department of Emergency Preparedness

LDEQ
EMERGENCY RESPONSE SECTION

DEC 02 2019

RECEIVED
SINGLE POINT OF CONTACT

UNAUTHORIZED DISCHARGE NOTIFICATION REPORT

Submitted to Louisiana Department of Environmental Quality
in accordance with LAC 33:I.3925 and 40 CFR §355.40(b)

1. **Name, address, telephone number, Agency Interest (AI) number if applicable, and any other applicable identification numbers of the person, company, or other party who is filing the written report, of person, company, or other party who is filing the written report:**

Union Carbide Corporation (AI 2083)
A Subsidiary of The Dow Chemical Company
P.O. Box 50
Hahnville, Louisiana 70057

Please contact Jorge Cerame at 985-783-3930 if you have any questions or need additional information. All written correspondence should be sent directly to Scott White, Responsible Care Leader at P.O. Box 50, Hahnville, LA 70057.

2. **Time and date of prompt notification, the state official contacted when reporting, the name of the person making that notification, and identification of the site or facility, vessel, transport vehicle, or storage area from which the unauthorized discharge occurred:**

<u>Time</u>	<u>Date</u>	<u>State Official Contacted</u>	<u>Verbal Notification by</u>	<u>Site/Facility</u>	<u>Case Number or Comments</u>
08:43 AM	11-20-19	Officer Monroe	Cody Rink	St. Charles Operations	007

3. **Date(s), time(s), and duration of the unauthorized discharge and, if not corrected, the anticipated time it is expected to continue:**

Discovery Date:	11-20-19	Discovery Time:	08:00 AM
Start Date:	11-20-19	Start Time:	07:00 AM
End Date:	11-20-19	End Time:	1:30 PM
Duration of Event:	6.5 hours		

4. **Details of the circumstances (unauthorized discharge description and root cause) and events leading to any unauthorized discharge, including incidents of loss of sources of radiation, and if the release point is subject to a permit:**

- a. **current permitted limit for the pollutant(s) released**
- b. **permitted release point/outfall ID, and**
- c. **which limits were exceeded (SO₂ limit, mass emission limit, opacity limit, etc.) for air releases**

Ethylene Oxide (EO) leaked out of the process side of a heat exchanger as a result of a mechanical defect. This heat exchanger utilizes river water on the cooling side of the exchanger to cool the process material on the hot side of the exchanger. EO leaked into the cooling water and traveled through the cooling water return. As it was released to an internal site water lateral, EO volatilized out of the water and into the atmosphere. EO volatilizes to the atmosphere in this situation due to temperature, pressure and turbulence of the internal site water lateral.

The column heat exchanger is regulated under the Oxide Title V Air Permit 476-V5. The site is under the LPDES Permit LA0000191. Monitoring of Internal Outfall 801 and Final Outfall 001 did not indicate a permit exceedance.

5. **Common or scientific chemical name of each specific pollutant that was released as the result of the unauthorized discharge, including the CAS number and U.S. Department of Transportation hazard classification, and best estimate of amounts of any or all released pollutants (total amount of each compound expressed in pounds, including calculations), and an indication of whether it is an extremely hazardous substance [EHS]:**

Chemical Name	CAS Number	DOT Hazard Class	EHS	Amount (lbs)
Ethylene Oxide	107-21-1	2.3, 2.1	Yes	49

6. **Statement of actual or probable fate or disposition of the pollutant or source of radiation and what offsite impact resulted (including medium into which the release occurred):**

Ethylene oxide (EO) was released to the atmosphere. The material leaked out of the process side of the heat exchanger as a result of a mechanical defect. EO leaked into the cooling water and traveled through the cooling water return. As it was released to an internal site water lateral, EO volatilized out of the water and into the atmosphere. Trace amounts of EO are suspected to have remained in the cooling water, however the analyzers for the cooling water return did not indicate any elevated levels of carbon. These findings are supported by previous studies regarding the volatility of EO.

7. **Remedial actions taken, or to be taken, to stop unauthorized discharges or to recover pollutants or sources of radiation:**

The leak was identified via routine sampling of the cooling water return. Upon detection, the plant initiated a controlled shutdown to stop the leak and prepare the equipment for maintenance and repair.

8. **Procedures or measures which have or will be adopted to prevent recurrence of the incident or similar incidents, including incidents of loss of sources of radiation:**

The plant has been shut down and the exchanger will be taken out of service for repair.

9. **If an unpermitted or unlicensed site or facility is involved in the unauthorized discharge, a schedule for submitting a permit or license application to the department, or rationale for not requiring a permit or license;**

The Oxide Plant where the release occurred is permitted. The permit number is 476-V5. Also, the site is under the LPDES Permit LA0000191.

10. **The reporting party's status (former or present owner, operator, disposer, etc.):**

Union Carbide Corporation is the present owner and operator of this facility.

11. **For discharges to the ground or groundwater, the following information shall also be included: all information of which the reporting party is aware that indicates pollutants are migrating, including, but not limited to, monitoring well data; possible routes of migrations;**

and all information of which the reporting party is aware regarding any public or private wells in the area of the migration used for drinking, stock watering, or irrigation:

This release did not impact ground or groundwater.

12. What other agencies were notified:

Agency	Person Notified	Case Number (if provided)
NRC	Leonard Newson	1264392
State Police	Officer Monroe	007
St. Charles DEP	Eric Zammit	Not provided

13. Names of all other responsible parties of which the reporting party is aware:

Not applicable for this event.

14. A determination by the discharger of whether or not the discharge was preventable, or if not, an explanation of why the discharge was not preventable:

The release was not preventable. During normal operations, the pressure of the cooling water on this heat exchanger is higher than the process side. Furthermore, previous daily, monthly and quarterly samples of the cooling water return header did not indicate any leak prior to this event. Upon detection, the plant initiated a controlled shutdown to stop the leak and prevent further impact to the environment.

15. The extent of injuries, if any:

There were no injuries associated with this event.

16. Estimated quantity, identification, and disposition of recovered materials, if any:

No recovered materials to report.

17. Any known or anticipated acute or chronic health risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for exposed individuals.

There are no known or anticipated acute or chronic health risks associated with this event.

18. Proper precautions to take as a result of the release, including any offsite protective action (road closure, shelter-in-place, evacuation, or none):

There were no precautionary measures necessary as a result of this release.